



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,757	08/24/2001	Yandapalli Durga Prasad	34603PCTUSAA; 066123.0108	4097
21003	7590	10/06/2003	EXAMINER	
BAKER & BOTT'S 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			WARE, DEBORAH K	
			ART UNIT	PAPER NUMBER
			1651	
DATE MAILED: 10/06/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Application/Control Number: 09/938,757 <b>Office Action Summary</b> Art Unit: 1651	Application No. 09/938,757	Applicant(s) PRASAD, YANDAPALLI, DURGA Page 33
	Examiner Deborah K. Ware	Art Unit 1651

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 July 2003.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
  - 4a) Of the above claim(s) 7-23 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

Claims 1-23 are presented for reconsideration on the merits.

Claims 7-23 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention(s), there being no allowable generic or linking claim. This application contains claims 7-23 drawn to an invention nonelected with traverse in Paper No. 7. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

Claims 1-6 remain rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/12877 in view of Vega (A) and Kelly (B). Applicant's arguments filed July 11, 2003, have been fully considered but they are not persuasive.

***Response to Arguments***

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., agropolymers comprised of pentosans as the major constituent) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, the argument that the findings of "the Report" directly contradict the art rejection and that the purported differences of the

claims over the WO Patent applied as a primary reference and noted above, is not deemed convincing and persuasive. Further, a finding of "the report" did not appear to consider the teachings of the cited secondary prior art references in combination with the primary reference, WO Patent, of which "the report" bases its finding upon, therefore.

Also it should be noted that the cited prior art references are applied against the claims as a combination and not independently over the claims. Applicant's set forth that WO/ 93/12877 directly contrasts with the present invention which raw materials are incapable of forming gels and are therefore, different than those raw materials of WO 93/12877. It is further noted that independent Claim 1, recites that the matrix of the claimed agropolymers are substantially devoid of proteins. However, Applicant's claimed subject matter does not appear to omit gelling nor does it omit the presence of any protein. Furthermore, at page 45, lines 25-35, WO 93/12877 teaches that chitosan does not gel. Therefore, the raw material of WO Patent do appear to require gelling if selected by an ordinary artisan as a constituent of a polymer or agropolymer.

In addition, the purported intended use argument present by Applicant's argument at page 5, last three lines that the desired utility such as a support is inconsistent with the claimed agropolymers is noted, however, the use of a product is not being claimed nor is the basis of patentability. The claimed subject is directed to a product and what it contains. The art rejection is directed to a product and what it contains. Also the argument that the claimed subject matter is directed to a metal-binding agropolymer that is devoid of any crosslinking agents of a metal-binding organic

nature such as tannic or humic acids, is noted, however, Applicants can not read limitations of the specification into the claimed subject matter. The claims require carbohydrate as an ingredient of the agropolymer being claimed and hence Vega teaches at col. 1, lines 49-50 that the carbohydrate components can serve as metal complexing agents in a composition.

Furthermore the argument that the teachings of WO 93/12877 would not have motivated one of ordinary skill in the art to select from plant-based material simply because of some negative testing reported by WO 93/12877 at page 46, lines 24-29, is noted but not persuasive. This is because carbohydrates are clearly disclosed by the WO 93/12877 to be useful for metal recovery therein (see abstract) and also by Vega, as noted above—see col. 1, lines 49-50. Also Applicant's claimed subject matter does not desire gelling and hence the art teaches these desirable properties for which Applicant appears to be seeking patent upon—agro(polymer) comprised of carbohydrates. It remains clear that one of ordinary skill in the art would have been motivated to select for carbohydrates as a natural ingredient of such polymers. It is further noted that the raw materials desired of the claimed invention are not capable of forming gels either. Hence selection of these materials for this desired well known result is clearly an obvious modification of the prior art.

Also noted is that Applicant's arguments are directed to purported teachings of the instantly filed specification wherein specific reference is made to preferables such as malleable, powder forms for which to form bricks, and other suitable structure, etc. However, although the claims are read in light of the specification limitations of the

Att'n ref: 18851

specification are not read into the claims. (See *In Re Van Geuns*. The argument that the claimed agopolymer is chemically distinct when compared to other products which are linked to metals to remove ions rather than crosslinking with other metal binding agents are noted, however, Vega clearly teach that carbohydrates as required of the claimed agopolymer are well known metal binding agents. See col. 1, lines 49-50. Also the claims are not directed to a use per se as set forth by Applicant's arguments and so any requirement of the art to teach column mode or batch mode is not persuasive.

In response to applicant's argument that since the porous body of the WO 93/12377 polymeric material is crosslinked with other metal binding agents and is not a requirement of the claimed agopolymer, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). This is especially true when the Vega reference, cited in combination with the WO Patent, does teach carbohydrates are metal binding agents. Therefore, with the desire to remove metal as disclosed by WO Patent combined with Vega, which teaches metal binding agents such as carbohydrates the motivation in the art is taught, or at least suggested, to select for a carbohydrate as a polymer ingredient. Such selection would have been within the purview of an ordinary artisan at the time the claimed invention was filed.

The arguments directed to a method of manufacture are noted, however, the claims of which the art has been applied against are directed to a product and not a

method of manufacture as set forth. Therefore, WO 93/12377 has not been applied against the method claims of which have been withdrawn from further consideration as being drawn to non-elected invention. With respect to pulverizing plant materials, Kelly clearly teaches milling, pounding, blending, (note col. 9, lines 1-10) all of which may pulverize plant material.

In response to Applicants argument that Vega does not teach that carbohydrates can act as metal complexing agent, but instead only teaches that a mixture containing carbohydrates can act as a metal complexing agent. However, polyhydroxycarboxylic acids are derived from carbohydrates such as pentoses (see col. 1, lines 40-45). Therefore, one of skill would have expected successful results of using source products of the mixture containing carbohydrates. To select for a carbohydrate is clearly an obvious modification of the cited prior art combination. Vega clearly teaches that pentosanes and other carbohydrates obtained from rice and oat hulls are the desired constituents (note col. 1, lines 20-23). One of skill in the art would not have been led away from selecting carbohydrates as a functioning metal binding agent. Again Applicant's purported arguments regarding any process for preparing an agropolymer is not persuasive since these claims have not been examined on the merits.

With respect to Kelly it is noted that the whole teaching in essence reads on a different invention from what Applicants' claimed subject matter wholly discloses, however, the instant claims are also directed to a composition of which no intended use is required therefore. Further, Kelly does teach a composition of which includes limitations of Applicants' claimed subject matter. This is the reason Kelly has been

applied and Applicant's reasons for combining the cited prior art appear to be different. In response to applicant's argument that Kelly describes a composition comprising natural phytoestrogens as food additives or for promoting health in cancer, etc. is noted, however, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Also Applicants have actually argued all of the references independently from the combination of cited prior art of record. Thus, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, in response to the three basic criteria for establishment of a *prima facie* case of obviousness:

- 1) Each of the references teach the ingredients of the claimed composition and hence each ingredient is well known and to combine well known ingredients in the art is obvious;
- 2) Each of the references combined suggests the desirability of the combination in that each one teaches a natural raw carbohydrate as being desirable for removing metals and for other purposes as well, two of the cited reference actually teach removal of metals which is also a desired of the instant claims of record;

3) Any burden of reasonable expectation of success as been met individually in the art and as applied in the cited prior art combination, there is no reason that carbohydrates would not have been expected to be successful metal binding agents, any negative test results of the cited WO Patent may have been due to conditions and "the report" as argued by Applicant does not remove any expected successful result of the combination of prior art applied against the claims—"the report" is based upon negative findings made under a give set of conditions of which does not apply to selection of ingredients for removing metals when the composition does not desire gelling and further Vega provides a positive teaching for the selection of carbohydrates;

4) All claim limitations are taught, or at least suggested, by the cited prior art and furthermore, are well within the skill of an ordinary artisan in this art.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Furthermore, WO 93/12877 does not teach that all plant-based materials are not suitable for forming the crosslinked highly porous body, however, Vega clearly teach the constituents of interest are pentosane and other carbohydrates which may be obtained from agricultural crop such as oat hulls, rice, etc. Thus, the cited art combination clearly

teaches that removing metals with these sources is well known. The point that gelling does not occur under a give set of conditions as taught by WO Patent is not relevant to the claimed subject matter, however. The instant claims do not require gelling. Finally, the argument that selection and combination of steps of the cited reference is using hindsight reconstruction is noted, however, the process claims have not been considered on the merits. Furthermore, In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

All claims fail to be patentably distinguishable over the state of the art discussed above and cited on the enclosed PTO-892 and/or PTO-1449. Therefore, the claims are properly rejected.

The remaining references listed on the enclosed PTO-892 and/or PTO-1449 are cited to further show the state of the art.

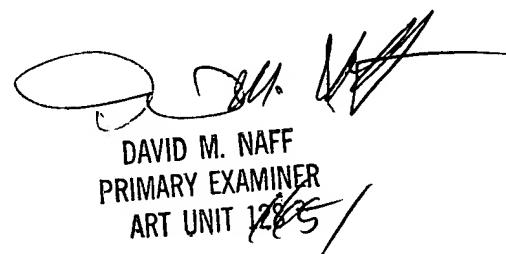
No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah K. Ware whose telephone number is 308-4245. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 308-4743. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0196.

  
Deborah K. Ware  
October 3, 2003

  
DAVID M. NAFF  
PRIMARY EXAMINER  
ART UNIT 1651